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`	ATENT	& TRADER	≥ In :

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:)	
)	Before the Examiner
Hai H. Trieu)	
Serial No. 10/630,092)	
)	Group Art Unit 1712
Filed July 30, 2003)	
)	
BIOACTIVE NANOCOMPOSITI	ES)	
AND METHODS FOR THEIR US	SE)	November 7, 2005

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Pursuant to the duty of disclosure in accordance with 37 C.F.R. §1.56, Applicant wishes to bring to the attention of the Examiner the items of information listed on the enclosed Information Disclosure Citation Form. This information has not been previously submitted in this application, and has not been heretofore cited previously by the Examiner. Copies of all foreign patent documents and/or non-patent literature are enclosed in accordance with 37 CFR 1.98(a). Copies of cited U.S. patents and patent applications are not enclosed pursuant to 37 CFR 1.491(b).

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Page 1 of 2

Information Disclosure Statement Hai H. Trieu Attorney Dkt. 4002-3367 I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on

November 7, 2005

(Date of Deposit) Timothy N. Thomas

Name of Registered Representative

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November 7, 2005

Date of Signature

The filing of this Information Disclosure Statement shall not be construed as an admission that the information cited is, or is considered to be, material to patentability as defined in §1.56(b).

This Statement is being submitted after the mailing of a First Office Action on the merits but before the mailing of a Final Office Action or Notice of Allowance, therefore the required fee of \$180.00 under 37 CFR 1.97(c) is enclosed for consideration of the same. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 23-3030, but not to include any payment of issue fees.

Respectfully submitted,

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Applicant's Substitute for 1449A7

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of

C	Complete if Known	
Application Number	10/630,092	
Filing Date	July 30, 2003	
First Named Inventor	Hai H. Trieu	
Group Art Unit	1712	
Examiner Name	Unknown	
Attorney Docket Number	4002-3367/PC477.02	

THE PARTY OF THE P	U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	U.S. Patent Document Number Kind Code ¹ (It known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
		4,131,597	Bluethgen et al.	12/26/78			
		4,192,021	Deibig et al.	03/11/80			
		4,437,836	Schmitz-Josten et al.	03/20/84			
		4,516,276	Mittelmeier et al.	05/14/85			
		4,623,553	Ries et al.	11/18/86			
		4,636,526	Dorman et al.	01/13/87			
		4,743,229	Chu	05/10/88			
- 1		4,776,890	Chu	10/25/88			
		4,888,366	Chu et al.	12/19/89			
		5,001,169	Nathan et al.	03/19/91			
		5,002,582	Guire et al.	03/26/91			
		5,015,247	Michelson	05/14/91			
		5,035,715	Smestad et al.	07/30/91			
	· · · · · · · · · · · · · · · · · · ·	5,091,344	Enomoto et al.	02/25/92			
		5,123,925	Smestad et al.	06/23/92			
		5,204,319	Enomoto et al.	04/20/93			
		5,217,492	Guire et al.	06/08/93			
		5,246,457	Piez et al.	09/21/93			
		5,273,964	Lemons	12/28/93			
		5,320,844	Liu	06/14/94			

	FOREIGN PATENT DOCUMENTS							
Examiner	Cite	F	oreign Patent Documen	t	Name of Patentee or Applicant	Date of Publication of	Pages, Columns, Lines, Where	
Initials*	No.1	Office ³	Number	(ind Code ⁵ (if known)	of Cited Document	Cited Document MM-DD-YYYY	Relevant Passages or Relevant Figures Appear	T ⁶
			EP 0 747 067 A2		Collagen Corporation	12/11/1996		
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¹ Unique citation designation number. ²See attached Kinds of U.S. Patent documents. ³ Enter Office that issued the document, by the two-letter code (WIPO) Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached. ⁷In-house version of PTO/SB/08A (10-96).

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		-		U.S. PATENT DOC	UMENTS	
Examiner Initials*	Cite No.1	Missenhau	nent nd Code ² if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		5,338,772		Bauer et al.	08/16/94	
		5,364,399		Lowery et al.	11/15/94	
		5,380,298		Zabetakis	01/10/95	
		5,468,544		Marcolongo et al.	11/21/95	
		5,480,438		Arima et al.	01/02/96	
		5,669,909		Zdeblick et al.	09/23/97	
•	-	5,776,193		Kwan et al.	07/07/98	
· · · · · · · · · · · · · · · · · · ·		5,782,919		Zdeblick et al.	07/21/98	
		5,817,328	1	Gresser et al.	10/06/98	2.4. Share
•		5,858,318		Luo	01/12/99	
		5,914,356		Erbe	06/22/99	
		5,964,807		Gan et al.	10/12/99	
		5,972,368		McKay	10/26/99	
		5,977,204		Boyan et al.	11/02/99	
		6,027,742	1	Lee et al.	02/22/00	
	•	6,033,438	1	Bianchi et al.	03/07/00	
		6,139,585		Li	10/31/00	
		6,152,927		Farris et al.	11/28/00	
		5,728,753		Bonfield et al.	03/17/98	
		5,645,934		Marcolongo et al.	07/08/97	

	FOREIGN PATENT DOCUMENTS								
ina	0'1-	For	eign Patent Docu	ment	Name of Retented or Applicant	Date of Publication of	Pages, Columns, Lines, Where	T	
Examiner Initials*	Cite No.1	Office ³	Number	Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Relevant Passages or Relevant Figures Appear	T⁵	
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Substitute for form 1449A/PTO

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Application Number	10/630,092				
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First Named Inventor	Trieu				
Group Art Unit	1712				
Examiner Name	Unknown				
Attornev Docket Number	4002-3367/PC477.02				

U.S. PATENT DOCUMENTS					
Exami ner	Cite No.¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Application of Cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
		5,679,723	10/21/1997	Cooper et al.	
		5,721,049	02/24/1998	Marcolongo et al.	
		5,380,298	01/10/1995	Zabetakis	
		6,165,486	12/26/2000	Marra et al.	
		6,270,347	08/07/2001	Webster et al.	
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	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY		Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
Exami ner Initials*		Country Code ³ -Number ⁴ -Kind Code ⁶ (if known)		Name of Patentee or Application of Cited Document		⊤ ⁴
		WO 00/57932	10/05/2000	Brigham & Womens Hospital		
		WO 01/01930	01/11/2001	Henkel, KGAA		
		WO 01/54746	08/02/2001	Advanced Research and Technology Inst., Inc.		
		WO 02/22117	03/21/2002	Zakrytoe		

Examiner Signature	Date Considered	

EXAMINER: Initial II reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the emperor must precede the serial number of the patent document.

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INFORMATION DISCLOSURE		Atty. Docket No.	Serial No.		
CITATION		4002-3367/PC477.02 Applicant	10/630,092		
(Use	e several sheets if necessary)	Hai H. Trieu			
	Page 4 of 5	Filing Date Group			
Examiner	Dr.	July 30, 2003	1712		
Initial		PUBLICATION			
	Allograft Catalog, University of Florida Tissue Bank, Inc., LIT.UF.CT96 Rev. A/98				
	Tangent Cortical Wedge Mechanical Testing, Regeneration Technologies, Inc., ©1999 RTI Flahiff, C.M. et al., "Analysis of a biodegradable composite for bone healing", Journal of Biomedical Materials Research, 32:419-424 (1996)				
	Verheyen, C.C.P.M. et al., "Hydroxylapatite/poly(L-lactide) composites: An animal study on push-out strengths and interface histology", <u>Journal of Biomedical Materials Research</u> , 27:433-444 (1993)				
	Verheyen, C.C.P.M. et al., "Evaluation of hydroxylapatite/ poly(L-lactide) composites: Mechanical behavior", Journal of Biomedical Materials Research, 26:1277-1296 (1992)				
	Furukawa, T. et al., "Histomorphometric study on high-strength hydroxyapatite/poly(L-lactide) composite rods for internal fixation of bone fractures", <u>Journal of Biomedical Materials Research</u> , 50:410-419 (2000)				
-	Yasunaga, T. et al., "Bonding behavior of ultrahigh strength unsintered hydroxyapatite particles/poly(L-lactide) composites to surface of tibial cortex in rabbits", <u>Journal of Biomedical Materials Research</u> , 47:412-419 (2000)				
	Watanabe, S. et al., "Traumatic Sternal Segment Dislocation in a Child", <u>CHEST</u> , 96(3):684-686 (1989)				
	Shikinami, Y. et al., "Bioresorbable devices made of forged composites of hydroxyapatite (HA) particles and poly-L-lactide (PLLA): Part I. Basic characteristics", <u>Biomaterials</u> , 20:859-877 (1999)				
	Doyle, C. et al., "In vitro and in vivo evaluation of polyhydroxybutyrate and of polyhydroxybutyrate reinforced with hydroxyapatite", <u>Biomaterials</u> ,12:841-847 (1991)				
	Higashi, S. et al., "Polymer-hydroxyapatite composites for biodegradable bone fillers", <u>Biomaterials</u> , 7:183-187 (1986) Bonfield, W. et al., "Hydroxyapatite reinforced polyethylene - a mechanically compatible implant material for bone replacement", <u>Biomaterials</u> , 2:185-186 (1981)				
	Hamadouche, M. et al., "The <i>In vivo</i> Bioactivity of Sol-Gel Bioactive Glasses Coated Alumina Implants", 46 th Annual Meeting, Orthopaedic Research Society, 0174 (2000)				
Examiner		Date Considered			
. *Examiner: in	nitial if reference considered, whether or not citation	n is in conformance with MPEP 609; !	Draw line through citation if not in		
	and not considered. Include copy of this form with		-		

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CITATI (Us	e several sheets if necessary)	Applicant Hai H. Trieu		
	Page 5 of 5	Filing Date July 30, 2003	Group 1712	
Examiner Initial	PU	JBLICATION		
1	Orefice, R.L. et al., "Processing Composites", <u>Bioceramics</u> , 8:40			
Liu, Qing et al.: "Nano-apatite/polymer composites: mechanical and physicocher characteristics". BIOMATERIALS, 1997 Elsevier Science Limited, GB. ISSN:				
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Examiner		Date Considered		
conformance	nitial if reference considered, whether or not citation and not considered. Include copy of this form with 57.TNT.249843		Draw line through citation if not in	